MORE NATIONS WITH NUCLEAR POWER

1. Living intimately as we are with the alarms and uncertainties of the atomic era -- where nuclear annihilation, fallout, and thermonuclear warfare have virtually become household words -- it is both instructive and a little disturbing to recall that the nuclear age began barely twenty years ago. When Enrico Fermi and his associates achieved the first self-sustaining nuclear chain reaction on that December 2, 1942 beneath the west stands of Stagg Field at the University of Chicago, they could scarcely have foreseen the magnitude of revolution in the field of military technology this discovery would bring in its wake.

2. Almost twenty years have passed since this new and awesome element began to complicate our international relations, particularly with our only real competitor in the nuclear field, the Soviet Union. Since the Soviet Union became a nuclear power more than ten years ago, however, there has been at least one element of stability -- the fact that a decision to use nuclear weapons could be made only in Moscow, Washington [redacted]

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In time we may well look back on those uncomplicated days with a certain amount of nostalgia -- for it is now clear that we have entered a period in which the prospect of the diffusion of nuclear weapons to additional countries -- the so-called "Nth Country Problem" -- is a realistic one.

3. It has been widely accepted that the diffusion of nuclear capabilities would be detrimental to US security and might not only alter the global balance of power, but also multiply the risks of nuclear war. President Kennedy, at a recent press conference had this to say about nuclear weapon proliferation:

> "I see the possibility in the 1970's of the President of the United States having to face a world in which 15 or 20 or 25 nations may have these weapons. I regard that as the greatest possible danger and hazard."

4. What I hope to do today is to try to bring this general question of nuclear proliferation into somewhat sharper focus by discussing those nations likely to emerge as nuclear powers within the next ten years, and then speculating briefly on the implications of such a nuclear diffusion for US intelligence and national security.

5. The problem of nuclear proliferation becomes a real one because of the explosive expansion of knowledge and technological

skills during the past two decades. The prerequisites to developing a crude nuclear device and a few nuclear weapons are becoming increasingly available to non-nuclear nations. Uranium, once an exotic and tightly controlled commodity, is now, for all practical purposes, available to any nation willing and able to pay for it. For example, a nation can probably purchase in the world market for something less than ten million dollars the uranium required to produce a few weapons. The plutonium route to a weapons program, as the result of easy access to the necessary technical information and advice, has become almost an easy trail, one made easier in the earlier stages at least because it is scarcely distinguishable from a purely peaceful program. By way of example, a reactor of sufficient size to produce enough plutonium for a few weapons might cost no more than twenty-five million dollars. As evidence of the increasing world capability, we need only recall that there are over a hundred reactors under construction or operational, not including those of the US, the Soviet Union, the UK and France, as well as a growing number of technicians, both home-grown and imported, available to those countries interested in a nuclear program.

6. And what of the economic barriers to the acquisition of nuclear weapons? In general, the costs of a nuclear weapons program are declining as fissionable materials become easier to obtain and as the spread of information on weapons technology lessens the possibility

of expensive development mistakes. Indeed, we now estimate that a crude weapon for delivery by existing conventional aircraft could be developed for about $200 million dollars.

7. Nevertheless, cost still remains a major inhibiting factor. The 200 million or so dollars required for a cut rate program may prove to be beyond the capacity of the poorer nations. A more substantial capability, including sophisticated delivery vehicles, would cost considerably more. [redacted] 25X1B

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8. All in all, however, it must be said that the technical and economic barriers to the acquisition of some sort of crude nuclear weapons are becoming less formidable, and it is conceivable that in time virtually any country willing to make the necessary sacrifices will be able to join the club.

9. This is very much a long term estimate, however. If we limit the potential members of the nuclear club to those nations which have the economic and technical capacity to produce a crude weapon, say, by 1970, the problem of the implications of nuclear proliferation for US policy becomes a bit more manageable. On the basis of our

most recent estimates we believe that eight nations, excluding France, have the capacity to produce and test a first nuclear device by 1970. This is assuming a decision is made by the nations concerned to pursue such a program within the next year or two.

10. The candidates [redacted] which could produce a nuclear device 1-2 years after the decision to go ahead is made, and Communist China, which could possibly detonate such a device by the end of 1963, but more likely later. [redacted] round out the list of those nations we believe have the technical and economic capacity to develop a token nuclear force without the assistance of the present nuclear powers. Of course, any decision on the part of one of the present nuclear powers to share technical information, or a significant technological advance in the nuclear art -- such as the much advertised gas centrifuge process for isotope separation -- could increase the potential number of pre-1970 candidates. I am inclined to think it unlikely, however, that such a dramatic technological breakthrough will occur at least for the next several years, and even if it occurred earlier it would probably not significantly affect the number of countries which could acquire a capability by 1970.

11. I began the list of potential nuclear club members by placing [redacted] Communist China in opposition for a particular reason. [redacted]

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On the other hand, Communist China, despite its staggering economic difficulties and the withdrawal of Soviet aid, apparently is prepared to make whatever sacrifices are necessary to become a nuclear power. This contrast between China [redacted] illuminates an important, if not decisive, dimension in any assessment of the prospects for nuclear proliferation. That is national differences in political will and strategic objectives may be more important in determining the pace and content of nuclear diffusion than differences in national wealth, technical skill levels, or geographic position. 25X6

12. I suggest that our assessment of a country's strategic and political situation will become increasingly important in estimating whether that nation is a potential nuclear weapons candidate. Who are its enemies? What will it take to intimidate them or to demonstrate the futility of an aggressive action? Does the nation in question have strategic requirements, political pretensions, or territorial ambitions which can be served only by the acquisition of nuclear weapons? If so, what would it take to do the job?

13. Thus, French national requirements, or pretensions, may only be satisfied by the development of a relatively sophisticated

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weapons system as well as an extremely costly delivery system enabling France to "share" in deterring the USSR, and hopefully strengthening its voice in world councils.

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[redacted]

15. Let us now put the foregoing generalizations in proper perspective, and discuss those nations which we believe will

actually have not only the capabity but the incentive and the strategic requirement to develop a crude weapons capability by 1970. The list is surprisingly short. Communist China, [redacted] 25X6 of course France which, although it has detonated a device, will probably not have a ready weapons system until the end of this year.

16. Let us now assume that present programs of Communist China, [redacted] 25X6 and France come to fruition, and take a close look at the impact their success would, or will, have on regional and global power relationships.

Communist China:

17. Our evidence with respect to Communist China's nuclear program does not permit a confident judgment about the likely date of a first nuclear explosion, but it could occur as early as 1963. I am inclined to believe it more likely that it will be somewhat later. The mere explosion of a nuclear device would give the Chinese Communists immediate and significant political and propaganda rewards. They would probably press on to create an operational nuclear capability, but such a capability could only be a limited one even by the end of the decade.

18. The Chinese would probably value nuclear weapons primarily for psychological support in exerting pressures short of general war. Even after acquisition of such weapons, it seems to me probable that the Chinese will use them not physically but politically and psychologically in re-enforcing their efforts to achieve Asian hegemony by

political pressures, limited border wars, and indirect support to local "wars of liberation". Their hope would be that their nuclear capability would weaken the resistance of neighboring countries, and convince them of the hopelessness of resisting Chinese demands. Clearly, some such tendency might develop, though I would also suggest a probable counter impulse as well -- namely increased reliance by China's neighbors on Western protection.

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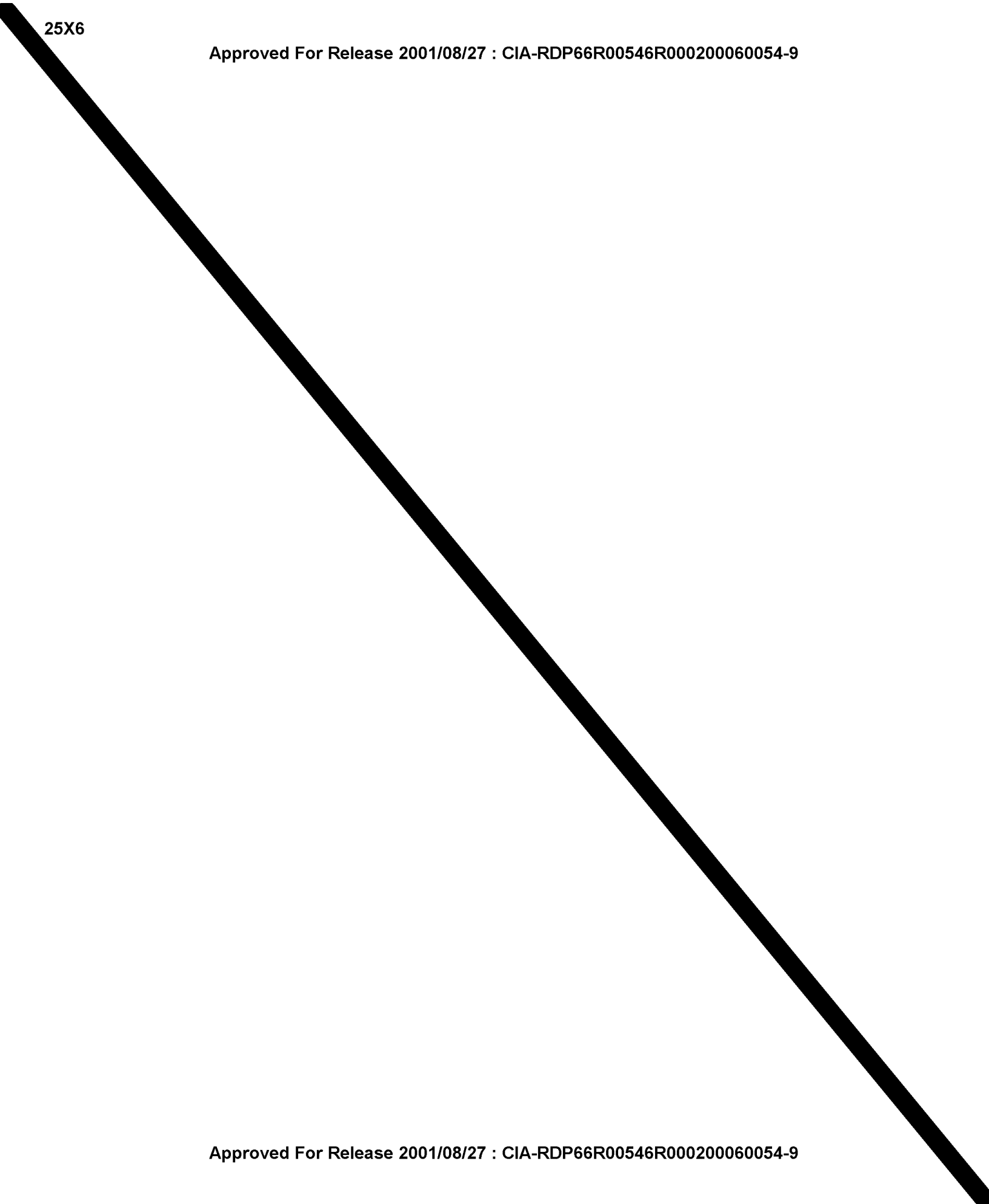

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France:

25. Finally, we come to the French nuclear program and the troubled state of our relations with General de Gaulle. The French are now fully committed to the achievement of at least an aircraft delivered nuclear capability, and will probably have such a capability by the end of this year. In addition, developments since last fall have if anything strengthened the picture of French determination to meet their further goals, which include an independent operational Polaris-type nuclear system by 1970.

26. Nevertheless, it is less clear that the French will be willing to carry through the more advanced and costly stages of their present program. For unlike smaller states which might aspire to a very modest nuclear capability for the sake of a power advantage over a local opponent, the French wish to compete in the big league. If the French are to have nuclear capabilities significant for Soviet calculations, they will need sophisticated weapons in some numbers and they will have to plan important continuing expenditures to stay in the race against obsolescence. Whether the French persist in an effort to become a nuclear power of the first rank depends on many political uncertainties affecting the future of the de Gaulle regime. All that can be said at this time is that the French will be the fourth nuclear power, but how important this fact will be to the strategic balance of power remains uncertain. In strict terms of a global power equation, we can discount the significance of the French effort, but as I have already said, a strict equation of military power not necessarily the only question.

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28. It has been suggested, also by some French commentators, that France could act as a catalyst in a general nuclear war. I think there has been much exaggeration of this danger. France, with at best a marginal first-strike capability and a non-existent second-strike capacity will scarcely be in a position to initiate a nuclear exchange with the Soviets. It would be small comfort to a devastated France that the US might come in to pick up the pieces.

29. What the French effort to become an independent nuclear power has done, however, is to open to fundamental reconsideration the whole question of the control of nuclear weapons within the NATO alliance. The exclusive American role in the planning and control of nuclear weapons on behalf of the alliance is under challenge, and not only in France. Theoretically there are two roads which the alliance might take. One would be to develop multilateral arrangements for the control of nuclear weapons, a complicated development which would call for new political institutions which would limit national sovereignties and bring about a closer alignment of national policies

than the alliance has so far had. The other way would be to devise ways of coordinating so far as possible a number of national nuclear forces which would nevertheless remain instruments of independent national policies. The solution of this problem will depend primarily on the French and ourselves and will doubtless take a good many years to work out.

30. Permit me to conclude with a few general observations on the outlook for nuclear proliferation.

First:

There are some eight nations which have the technological and economic capability to produce a crude weapon by the end of the decade, but present indications are that only three -- Communist China, [redacted] France -- are likely to be card carrying club members by 1970. Let it be said, however, that the success of these countries in achieving nuclear weapons status could trigger other problems.

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Second:

At least until the end of this decade we believe the impact of the arrival of new nuclear club members on global power relationships will be slight. What will be important is the effects the acquisition of nuclear weapons will have on regional and alliance relationships.

Third:

These effects -- and they will be real, complex, and not entirely foreseeable now -- are likely to derive not from the military employment

of the new weapons but from the political and psychological effects of their existence. The problems looming up, in short, are as much if not more political than military.

Fourth:

As the number of nuclear weapons programs increases, the risk of an accidental detonation will rise even more steeply. Cut rate programs will definitely increase the possibility of an accident -- particularly since safety devices are expensive and temptingly easy to dispense with. Accidents might, of course, dampen the enthusiasm of aspiring nuclear weapons candidates. It is not, in any case, necessarily so that a small nation could "trigger" a global war by using its nuclear weapons in a local context.

Fifth:

We anticipate that an increasing number of nations will actively pursue nuclear energy programs right up to the threshold of a weapons capability. Such a program could be justified domestically as a source of power and as providing a beneficial stimulus to the development of technological skills and the more sophisticated industries. Given such a threshold capability a nation could opt for a crash weapons program if circumstances required. This is the road [redacted] have taken. It may well be the path of others.

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Sixth:

The prospect, then, is one of a gradual diffusion of nuclear weapons capability. The precise pace of proliferation during this

decade among those nations who have the capacity to develop nuclear weapons will depend on a number of factors. These include the policies of the present nuclear powers, regional power relations, and the success the second generation powers have in gaining a greater voice in the councils of their own alliance. Nuclear proliferation, then, is clearly a complex and worrisome problem, but it is not a totally unmanageable one. The traditional skills of diplomacy, foresight and old-fashioned balance-of-power international politics will have to be called into play today to cope with this additional strain on our unhappy world of nation states in the next decade as it has for several centuries in the past. Our success has never been better than indifferent, but there is no reason to view the chances as hopeless because of the prospects of proliferation as we see them in the years immediately ahead.

PRESIDENT KENNEDY'S NEW CONFERENCE

March 21, 1963

Q: Mr. President, after all of the years of failure in attempting to reach a nuclear test ban agreement at Geneva, and in view of the current stalemate at the Geneva conference, do you still really have any hope of arriving at a nuclear test ban agreement?

A: Well, my hopes are somewhat dimmed, but nevertheless, I still hope. The fact of the matter is that the Soviet Union did accept in December a position which it had denied over the past two years or so, of inspection. Now, what we are disagreeing about are the number of inspections, but at least the principle of inspection is accepted. Now, the reason why we keep moving and working on this question, taking up a good deal of energy and effort, is because personally I am haunted by the feeling that by 1970, unless we are successful, there may be 10 nuclear powers instead of 4, and by 1975, 15 or 20.

With all the history of war -- and the human race's history unfortunately has been a good deal more war than peace -- with nuclear weapons distributed all through the world, and available, and the strong reluctance of any people to accept defeat, I see the possibility in the 1970's of the President of the United States having to face a world in which 15 or 20 or 25 nations may have these weapons. I regard that as the greatest possible danger and hazard.

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